

## PRODUCTION OF SILICONE BASED GRAFT COPOLYMER

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### Abstract of JP60123518

**PURPOSE:** To obtain the titled copolymer having improved water, heat and weather resistance, etc., by copolymerizing an acrylic-modified silicone of a condensate of silicone of a specific formula with an acrylic compound radically with a radically polymerizable monomer.

**CONSTITUTION:** (A) A silicon expressed by formula I (R<sub>1</sub> and R<sub>2</sub> and 1-10C monofunctional aliphatic hydrocarbon, phenyl or halogenated hydrocarbon; n>=2) is reacted with (B) an acrylic compound expressed by formulas II and/or III [R<sub>3</sub> is H or methyl; R<sub>4</sub> is methyl, ethyl or phenyl; m is 0 or 1; l is an integer 0-2 when m is 0, l is 1 when m is 1; X is 1-10C alkoxyl, acetoxy or Cl], e.g. (meth)acrylate silane, in a solvent, e.g. diethyl ether, to give an acrylic-modified silicone. The resultant acrylic-modified silicone is then reacted with (B) a radically polymerizable monomer, e.g. ethylene, in the presence of a radical polymerization initiator, e.g. ammonium persulfate, generally at 50-100 deg.C for 3- 100hr to afford the aimed copolymer.

